

Michigan Unmanned Aerial Systems Task Force and the State of UAS in Michigan

Presentation for the House Communications and Technology

February 13, 2018

Mike Trout, A.A.E.

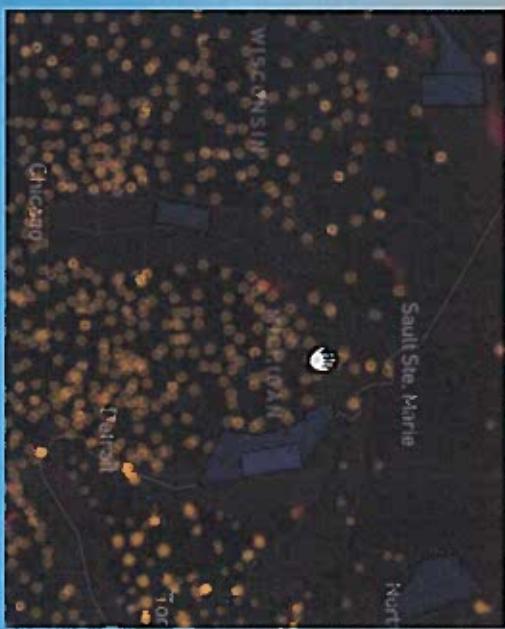
Executive Administrator, MDOT Office of Aeronautics
Chairman, Michigan UAS Task Force

FAA Pilot, Airspace, and Operation Requirements

	Aircraft Requirements*	Pilot Requirements	Airspace Requirements	Type of Operation
Part 107	UAS < 55 lbs.	Part 107 remote pilot certificate with small UAS rating	Airspace waiver or authorization for Class B, C, D, E airspace	VLOS, daytime, Class G, 400 ft., not over people OR waiver provisions
Section 333	As specified in exemption	Part 61 airmen certificate	Blanket COA or Standard COA for specific airspace	UAS > 55 lbs.
Experimental Aircraft	Experimental Special Airworthiness Certificate	Part 61 airmen certificate	Standard COA for specific airspace	Research and development, crew training, and market survey
Type Certificated Aircraft	Restricted type or special class certification	Part 61 airmen certificate	Part 91 airspace requirements	Specified in operating authorization
Public Aircraft	Self-certification by public agency	Self-certification by public agency	Blanket COA or Standard COA for specific airspace	Public Aircraft Operations (AC 00-11A); UAS Test Site operations
Part 101 Model Aircraft	UAS < 55 lbs.	Community-based organization (CBO) standards	Notification requirement within 5 miles of an airport	Hobby or recreational, VLOS, Part 101 operating rules, CBO standards

Part 107 – Operational Restrictions

- Max altitude 400' or within 400' of structure
- Visual line of sight
- Daylight operations only
- Yield to aircraft
- One UAS per operator
- No faster than 100 mph
- Not over people
- Not from moving vehicle
- COA/LOA needed for controlled airspace
- Most restrictions are waivable by FAA



Michigan Public Act 436 of 2016

- Defines Unmanned Aircraft System
 - “Means an unmanned aircraft and all the associated support equipment, control station, data links, telemetry, communications, navigation equipment, and other equipment necessary to operate the unmanned aircraft.”
- Defines Unmanned Aircraft
 - “Means an aircraft flown by a remote pilot via a ground control system, or autonomously through the use of an on-board computer, communication links, and any additional equipment that is necessary for the unmanned aircraft to operate safely.”

Michigan Public Act 436 of 2016

- Local Regulation of UAS Prohibited
 - “A political subdivision shall not enact or enforce an ordinance or resolution that regulates the ownership or operation of unmanned aircraft or otherwise engage in the regulation of the ownership or operation of unmanned aircraft.”
- State Authorization
 - “A person that is authorized by FAA to operate UAS for commercial purposes may operate a UAS in this State if the UAS is operated in a manner consistent with federal law.”
 - “A person may operate an unmanned aircraft system in this state for recreational purposes if the unmanned aircraft system is operated in a manner consistent with federal law for the operation of a model aircraft.”
- First Responders
 - “An individual shall not knowingly and intentionally operate a UAS in a manner that interferes with the official duties of a police officer, firefighter, paramedic, or search and rescue personnel.
 - Task Force recommended modification

Michigan Public Act 436 of 2016

- Harassment
 - “A person shall not knowingly and intentionally operate an unmanned aircraft system to subject an individual to harassment.
 - See MCL 750.411h and 750.411i
- Restraining Orders
 - “A person shall not knowingly and intentionally operate an unmanned aircraft system with a distance that, if the person were to do so personally rather than through remote operation of an UAS, would be a violation of a restraining order or other judicial order.
- Privacy
 - “A person shall not knowingly and intentionally operate a UAS to violate MCL 750.539j or to otherwise capture photographs, video, or audio recordings of an individual in a manner that would invade the individual's reasonable expectation of privacy.
- Sex Offender
 - “An individual who is required to register as a sex offender under MCL 28.721 to 28.736 shall not operate a UAS to knowingly and intentionally follow, contact, or capture images of another individual if the individual's sentence in a criminal case would prohibit the individual from following, contacting, or capturing the image of the other individual.”

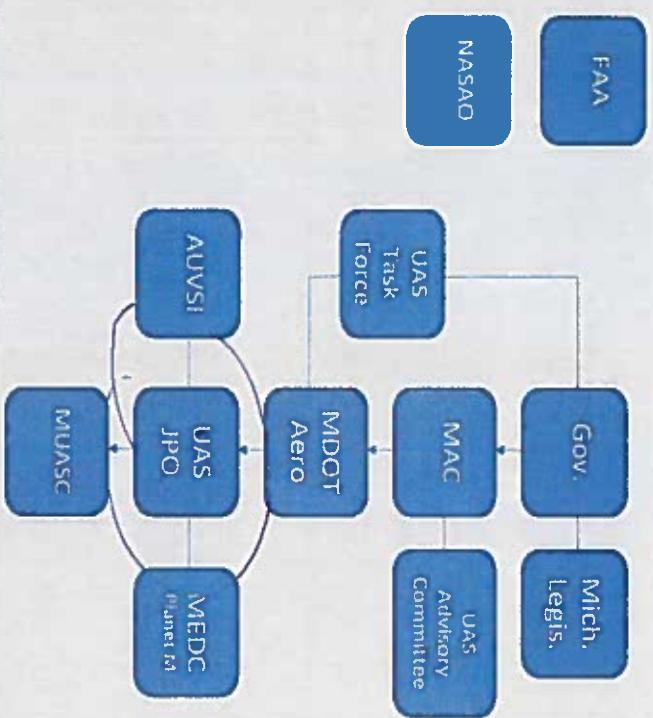
UAS Task Force Establishment

- Charge – Develop statewide policy recommendations on the operation, use, and regulation of UAS in Michigan
- Membership – Chaired by MDOT
 - Includes representation from MDOT Bridge, MSP, MDNR, MDARD, LARA, MDOC and a variety of industry members
 - Total of 27 members
- 90 day timeline to issue final report
- Ongoing meetings – Task Force to meet at least once every 18 months

UAS Task Force Recommendations

- Establish UAS Joint Program Office
- Recognize appropriate association/organization representing UAS users to interact with Joint Program Office
- Reaffirm role of Michigan Aeronautics Commission's role in overseeing aviation in Michigan

Michigan UAS Layout



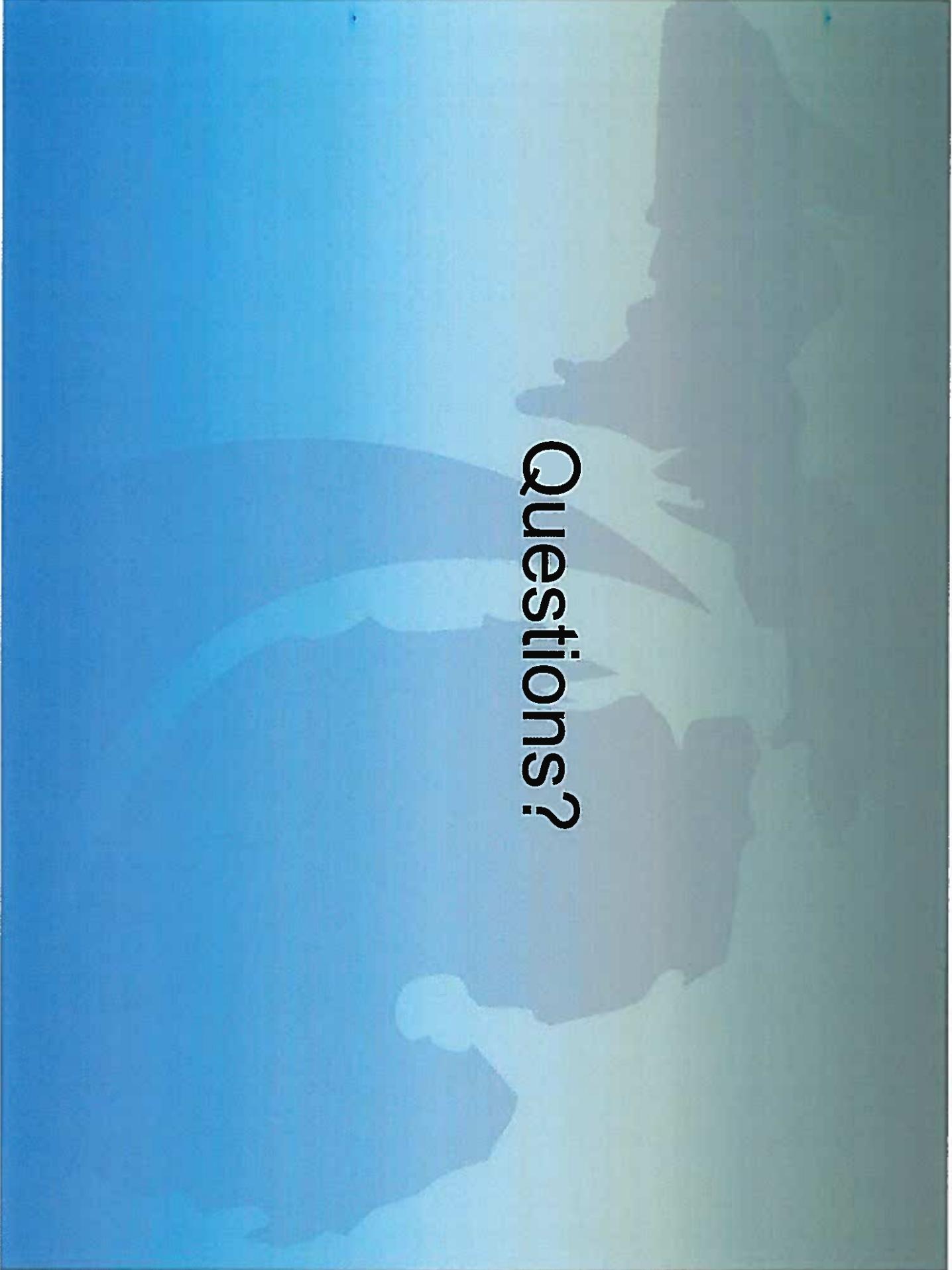
UAS TASK FORCE

Recommendations

- Develop education and outreach strategy for public agencies and private users of UAS
- Develop data retention and sharing guidelines for state agencies
- Enact legislation considering UAS use an “extension of self” for criminal activity
- Explore deployment of UAS Traffic Management
- Enact legislation restricting use of UAS when interfering with key and unique facilities
- Clarify existing law on interference with first responders
- Submit a Michigan proposal for FAA UAS Integration Pilot Program
- Support technology sharing among UAS developers and operators
- Seek growth of UAS operations at American Center for Mobility and similar sites

UAS Task Force Next Steps

- Legislation introduced to address several UAS Task Force Recommendations:
 - Establishment of UAS Program Office in coordination with MDOT / Michigan Aeronautics Commission (HB 5496)
 - “Extension of self” for criminal activity (HB 5494)
 - Clarify definition of law enforcement / first responder with regard to UAS interference (HB 5497)
 - Restrict interference with operation of key and unique facilities (HBs 5495, 5498)
- Continue to work to spur economic growth by supporting UAS integration with an eye toward safety and security of critical infrastructure and key/unique facilities
- Submission to FAA's UAS Integration Pilot Program
 - Submitted early January 2018
 - Strong team of nearly 30 commercial partners from across the Country, 6 state agencies, nearly all state universities
 - 5 airspace sites selected – Traverse City / Lake Michigan, Romeo/Port Huron, Willow Run/ACM, Battle Creek, Alpena
 - Focus on safety of flight over humans, safety of flight at night, beyond visual line of sight operations, unmanned traffic management
 - FAA decision expected mid-March 2018.
 - <http://www.michigan.gov/uastaskforce>

A photograph of a person from the side, facing right. They are wearing a light-colored shirt and dark trousers. Their hands are clasped together on a light-colored desk. A laptop is open in front of them. The background is slightly blurred, showing what appears to be a window or a bright outdoor area.

Questions?

